

TWO NEW SPECIES OF TETRASTICHINAE FOERSTER
(HYMENOPTERA: EULOPHIDAE) FROM INDIA¹

M. YOUNUS KHAN AND S. ADAM SHAFEE²

(With two text-figures)

Two new species of *Syntomosphyrum* Foerster (*S. cerococci* sp. nov. and *S. mashhoodi* sp. nov.) are described in detail. Holotype and paratypes are deposited in Zoological Museum, Aligarh Muslim University, Aligarh, India.

Syntomosphyrum cerococci sp. nov.

(Fig. 1 A-J)

Female (Fig. 1 A).

HEAD (Fig. 1 B).—Dark with metallic reflections, wider than long in facial view (0.42:0.34 mm); frontovertex smooth, width more than one-half the total head width; scrobes deep and convergent above; ocelli white, arranged in obtuse triangle, lateral ocelli by their own diameters from orbital margin; antennae inserted just below lower level of eyes; prominence between antennal sockets one-fourth the width of frons between eyes; malar space longer than eye width; malar sutures distinct; eyes reddish brown; mandibles tridentate with apical tooth acute, mesal rounded, lower rudimentary (Fig. 1 C); maxillary and labial palpi each 1-segmented (Fig. 1 D); lower margin of clypeus with two dents medially (Fig. 1 B).

ANTENNAE (Fig. 1 E).—Brown except scape which is yellowish brown; 8-segmented excluding 1 ring segment; scape cylindrical, four times as long as wide (0.16:0.04 mm), as long as funicle; pedicel one and a half times as long as wide, longer than first funicle segment; funicle 3-segmented, first slightly longer

than wide, second and third each as long as wide; club 3-segmented, about twice as long as wide (0.13:0.06 mm), longer than preceding two funicle segments together.

THORAX.—Dark with metallic reflections; posterior margin of pronotum with submarginal ridge bearing 5 pairs of setae (Fig. 1 F); parapsidal furrows well developed; mesoscutum with 3 setae near each parapsidal furrow and without mid longitudinal groove; scutellum with 4 setae and without submedian grooves; propodeum with a well developed carina.

FORE WINGS.—Hyaline, slightly more than twice as long as wide (1.13:0.5 mm); disc with hyaline setae, broadly rounded at apex; costal cell longer than marginal vein and with 4 small setae; submarginal vein with 1 long seta directing apically and 3 small setae directing backward; marginal vein with 9 setae; postmarginal vein absent; marginal fringe short, spaced by a distance equal to one-third their length.

HIND WINGS.—Hyaline, five times as long as wide (1.1:0.22 mm), narrow at apex; disc with hyaline setae; marginal fringe spaced by a distance equal to one-fourth their length.

LEGS.—Yellowish brown except coxae and femora which are dark brown; tarsi 4-jointed; middle tibial spur shorter than basitarsus.

ABDOMEN.—Dark brown and petiolate, shorter than head and thorax together; ovipositor concealed, arising from apical one-third of abdominal venter; first valvifers triangular with basal and apical angles at different levels (Fig. 1 G); anterior margin of basal part of second valvifers not much curved; third valvulae short and blunt, two and a half times

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² Section of Entomology, Department of Zoology, Aligarh Muslim University, Aligarh, India.

NEW DESCRIPTIONS

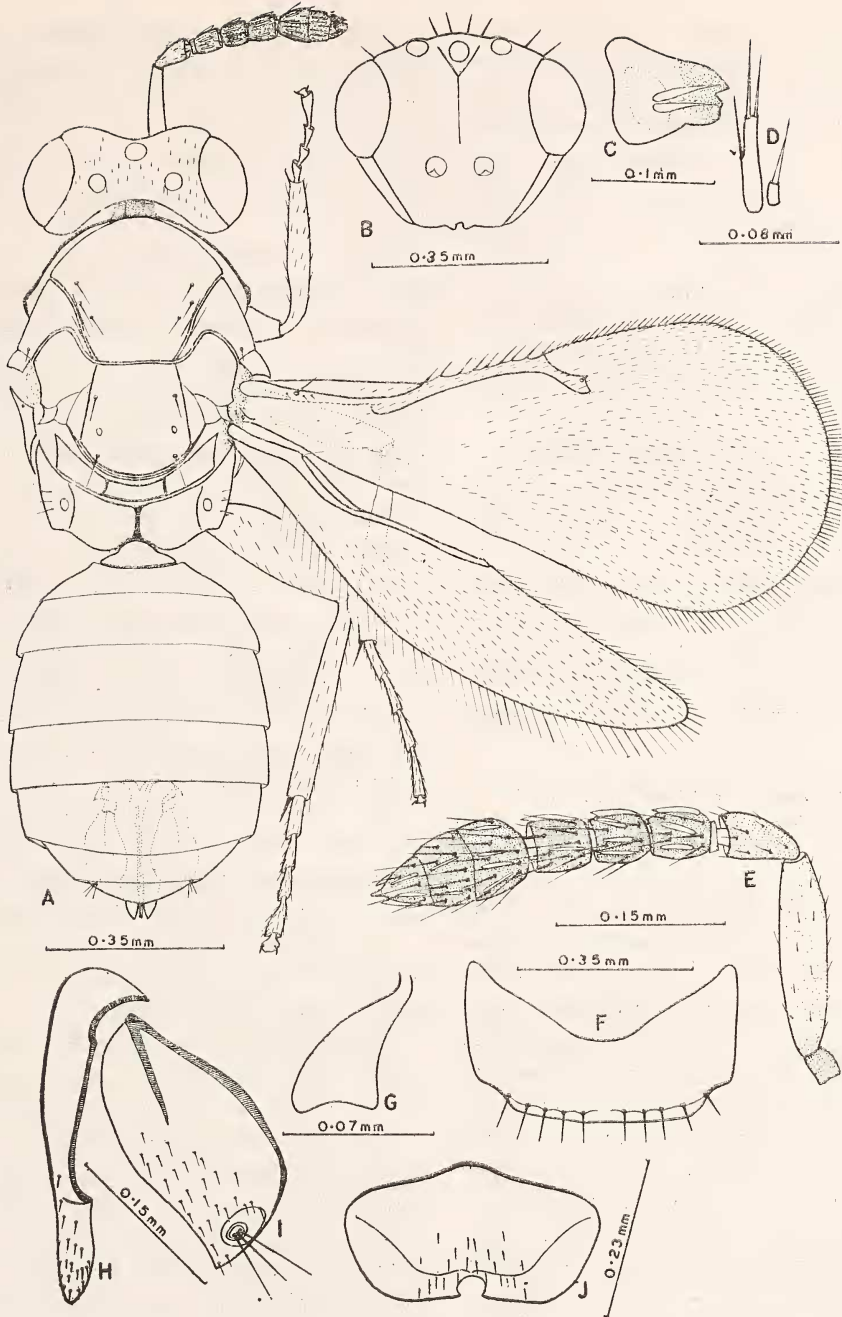


Fig. 1. A-J. *Syntomosphyrum cerococci* sp. nov., ♀: (A) Entire body; (B) Head in facial view; (C) Mandible; (D) Maxillary and labial palpi; (E) Antenna; (F) Pronotum; (G) First valvifer; (H) Second valvifer and third valvula; (I) Outer plate of ovipositor; (J) Subgenital plate.

as long as wide, less than one-half the length of second valvifers (Fig. 1 H); outer plates of ovipositor broad, twice as long as wide with thickened dorsal margin, apex broadly truncated (Fig. 1 I); subgenital plate short and of uniform width, posterior margin with a small semicircular notch in middle (Fig. 1 J).

Female length: 1.38 mm.

Holotype ♀. INDIA: Karnataka, Bangalore city, ex *Cerococcus hibisci* Green on *Hibiscus rosinensis* Linn., 4.viii.1976 (*M. Younus Khan*).

Paratypes. 4 ♀ (same data as holotype).

In the key to species of *Syntomosphyrum* Foerster proposed by Khan & Shafee (1980) the new species is close to *S. javanicum* Ferrière, but is distinguished by the mesoscutum having 3 setae near each parapsidal furrow, pedicel one and a half times as long as wide, antennae with one ring segment, club distinctly longer than preceding two funicle segments together.

***Syntomosphyrum mashhoodi* sp. nov.**
(Fig. 2 A-G)

Female

HEAD.—Yellowish brown, wider than long in facial view; frontovertex width more than one-half the total head width; ocelli white, arranged in obtuse triangle, lateral ocelli twice their own diameters from orbital margin and close to occipital margin; eyes red and smooth; antennae inserted at lower level of eyes; prominence between antennal sockets one-third the width of frons between eyes; malar space longer than eye width; malar sutures distinct; mandibles with apical tooth acute (Fig. 2 A); maxillary and labial palpi each 1-segmented.

ANTENNAE (Fig. 2 B).—Yellow, 8-segmented excluding 1 ring segment; scape cylindrical, three and a half times as long as wide; pedicel one and a half times as long as wide, as long

as first funicle segment; funicle 3-segmented, first and second segments subequal in length, each slightly longer than wide, third longest, more than one and a half times as long as wide; club 3-segmented, three times as long as wide (0.16:0.05 mm), slightly shorter than funicle.

THORAX.—Dark brown; pronotum with posterior margin slightly curved, posterior submarginal ridge distinct bearing 3 pairs of setae (Fig. 2 C); parapsidal furrows complete; mesoscutum with 2 setae near each parapsidal furrow and without median groove; scutellum wider than long with 2 pairs of setae and without submedian grooves; propodeum with a median carina.

FORE WINGS.—Hyaline, more than twice as long as wide (1.2:0.53 mm), broadly rounded at apex; disc with hyaline setae; costal cell slightly longer than marginal vein and with 11 setae; submarginal and marginal veins with 1 and 8 setae respectively (Fig. 2 D); marginal fringe short, spaced by a distance equal to one-half their length.

HIND WINGS.—Hyaline, five times as long as wide (0.96:0.19 mm), disc with hyaline setae; marginal fringe short, spaced by a distance equal to one-half their length.

LEGS.—Yellow except coxae and femora which are brown; tarsi 4-jointed; middle tibial spur shorter than basitarsus.

ABDOMEN.—Brown, petiolate, about as long as head and thorax together; ovipositor concealed, arising from mid of abdominal venter; first valvifers triangular with basal and apical angles at different levels (Fig. 2 E); anterior margin of basal part of second valvifers much curved; third valvulae six times as long as wide, less than one-half the length of second valvifers (Fig. 2 F); outer plates of ovipositor slightly shorter than second valvifers and third valvulae together (Fig. 2 G).

Female length: 1.2 mm.

NEW DESCRIPTIONS

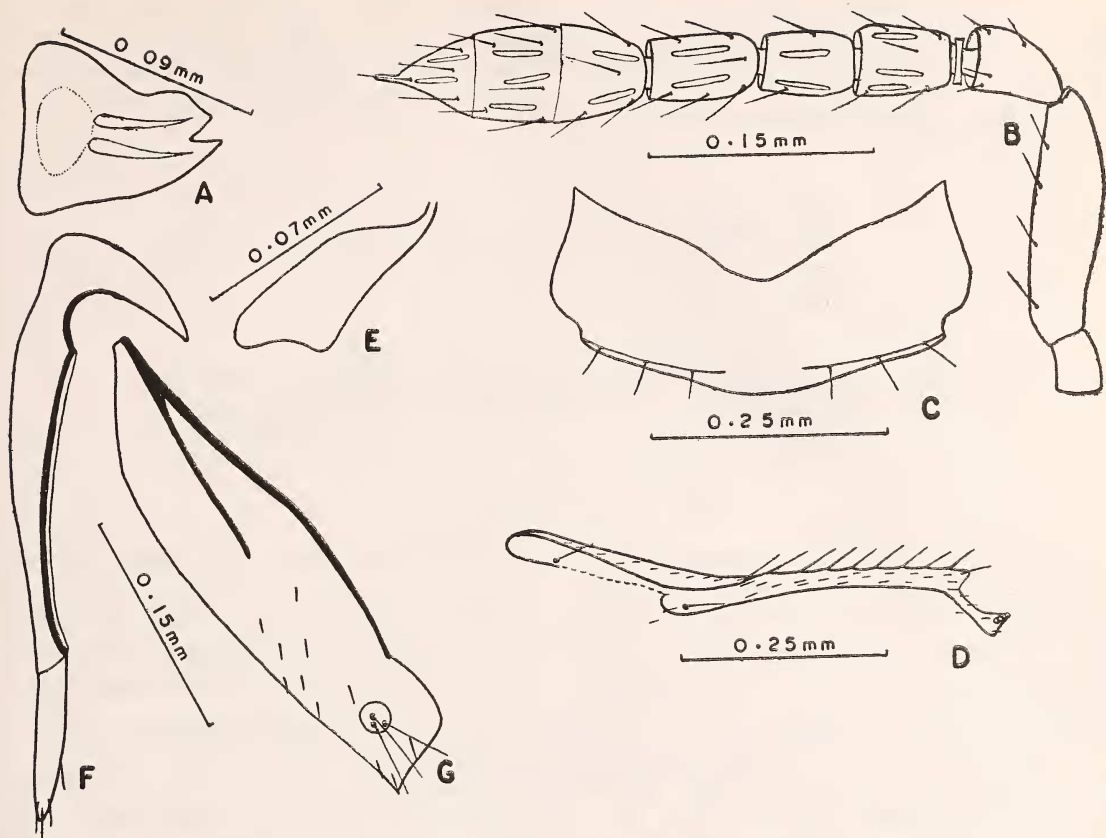


Fig. 2. A-G. *Syntomosphyrum mashhoodi* sp. nov., ♀: (A) Mandible; (B) Antenna; (C) Pronotum; (D) Fore wing venation; (E) First valvifer; (F) Second valvifer and third valvula; (G) Outer plate of ovipositor.

Holotype ♀. INDIA: Uttar Pradesh, Aligarh, University Campus, ex Coccinellid larvae on aphids on *Solanum melongena* Linn., 10.vii. 1977 (M. Younus Khan).

Paratypes. 2 ♀ (same data as holotype).

In the key to species of *Syntomosphyrum* Foerster given by Khan & Shafee (1980) *S. mashhoodi* sp. n. is close to *S. taprobanes* Waterston, from which it can be separated by the pedicel being more than one-third the

length of scape, antennae with one ring segment, first and second funicle segments subequal and each distinctly longer than wide, third funicle segment longest, disc of fore wings with hyaline setae, submarginal vein with one seta.

This species is named for Prof. S. Mashhood Alam, in recognition of his contributions to our knowledge of the Chalcidoidea.

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REFERENCE

KHAN, M. Y. & SHAFEE, S. A. (1980): Taxonomic studies on some Eulophid parasites (Hymenoptera: Chalcidoidea). *J. Bombay Nat. Hist. Soc.* 76 (2): 324-334.

NEW SPECIES OF THE GENUS *CHRYSONOTOMYIA* ASHMEAD
(HYMENOPTERA: EULOPHIDAE) FROM INDIA¹

M. YOUNUS KHAN AND S. ADAM SHAFEE²

(With sixteen text-figures)

The genus *Chrysonotomyia* was proposed by Ashmead (1904) for the species *Eulophus auripunctatus* Ashmead. Recently, Boucek (1977) included the genus *Achrysocharis* Girault in the synonym of *Chrysonotomyia* Ashmead. The distinguishing characters of this genus have been given by Ashmead (1904). We suggest some new generic characters, which are as follows: Pronotum with posterior margin much curved, anterolateral angles acute (Fig. D); first valvifers triangular with basal and apical angles at different levels (Fig. J); third valvulae short, movably articulated with second valvifers (Fig. K); outer plates of ovipositor long, narrow at base with a submarginal ridge along basal two-third of dorsal margin (Fig. L).

Chrysonotomyia kerrichi sp. nov.
(Figs. A-M)

Female

HEAD.—Orange yellow, slightly wider than long in facial view (0.44:0.4 mm); frontover-

tex slightly longer than wide, width one-third the total head width; ocelli red, arranged in equilateral triangle, lateral ocelli less than their own diameters from orbital margin and twice their own diameters from occipital margin; eyes red and sparsely setose; antennae inserted at lower level of eyes; prominence between antennal sockets about one-half the width of frons between eyes; malar space much shorter than eye width; malar sutures absent; mandibles tridentate with two acute teeth and a truncation which is serrated (Fig. A); maxillary and labial palpi each 1-segmented (Fig. B).

ANTENNAE (Fig. C).—Yellowish brown except scape which is yellow; 7-segmented excluding 2 ring segments; scape cylindrical, six times as long as wide (0.18:0.03 mm); pedicel more than twice as long as wide, longer than first funicle segment and subequal to second; funicle 2-segmented, first one and a half times as long as wide, second twice as long as wide and longer than first; club 3-segmented, five times as long as wide, much longer than funicle.

THORAX (Fig. E).—Yellowish except mesos-

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² Section of Entomology, Department of Zoology, Aligarh Muslim University, Aligarh, India.